



WESTON SOLUTIONS, INC.
205 CAMPUS DRIVE
EDISON, NEW JERSEY 08837
732-417-5800 • FAX: 732-417-5801

The Trusted Integrator for Sustainable Solutions

October 27, 2014

Mr. Andrew Fessler, Work Assignment Manager
U.S. Environmental Protection Agency
290 Broadway - 18th Floor
New York, NY 10007-1866

Document Control No.: R2-A-47

Subject: Sampling Trip Report
Task No. 1411, Columbia Smelting & Refining Works
Preliminary Assessment/Site Inspection (PA/SI)
Contract No.: EP-W-05-042

Dear Mr. Fessler:

Weston Solutions, Inc. (WESTON®) is pleased to submit the Sampling Trip Report for the soil sampling associated with the Columbia Smelting & Refining Works (CSR) PA/SI assignment. WESTON personnel collected soil samples on October 15 and 16, 2014. If you have any questions, please contact me at (732) 417-5814.

Very truly yours,
WESTON SOLUTIONS, INC.

Denise Breen
Associate Project Scientist

enclosure

cc: C. Romano, EPA (w/o enclosure)
 G. Gilliland, WESTON (w/o enclosure)
 Site file

SAMPLING TRIP REPORT

SITE NAME: Columbia Smelting & Refining Works (CSR)
DCN: R2-A-47
W.O.: 20114.002.014.1411.00
CLP Case No.: No case number assigned

EPA I.D. NO.: NYN000206593

SAMPLING DATES: October 15–16, 2014

1. Site Location: Refer to Figure 1
2. Site Map and Sample Locations: Refer to Figures 2 and 3
3. Sample Descriptions: Refer to Table 1
4. Laboratories Receiving Samples:

Analyses

Name and Address of Laboratory

Target Analyte List (TAL) Inorganics plus tin (Sn)

EPA Region 2 Division of Environmental
Science and Assessment (DESA)
2890 Woodbridge Avenue
Building 209
Edison, NJ 08837

5. Sample Dispatch Data:
 - Forty-two soil samples and one rinsate blank for TAL Inorganics (plus Sn) analysis were collected on 10/15/14 and delivered to the DESA lab at 13:30 hours on 10/17/14.
 - Forty soil samples for TAL Inorganics (plus Sn) analysis were collected on 10/16/14 and delivered to the DESA lab 13:30 hours on 10/17/14.
6. Sampling Personnel:

Name	Organization	Site Duties
Denise Breen	WESTON	Field Team Leader, Site Health and Safety Coordinator (SHSC), Sample Management Officer (SMO), Sampler

Michele Capriglione	WESTON	Global Positioning System (GPS) Data Collection, Sampler
Jake Pellicano	WESTON	Sampler, GPS Data Collection
Scott Cassidy	WESTON	Sampler, GPS Data Collection
Andrew Fessler	EPA	Contracting Officer Representative (COR) (10/16/2014)

7. Additional Comments:

On October 15–16, 2014, WESTON personnel collected a total of 82 soil samples (including 5 environmental duplicate samples). The samples were collected from the grassy areas on the NYCHA Red Hook II (East) Development, from the rights-of-way (ROW) located along Lorraine Street and Henry Street, and from Red Hook Park.

Soil samples were collected from a total of 16 locations on and near the former smelter location in Brooklyn, NY. Potential source samples were collected from four locations within the New York City Parks Department property of Red Hook Park, where the former CSR building footprint is located. Potential release samples were collected from six downwind sample locations based on historical predominant wind directions; these samples were collected southeast and southwest of the smelter footprint. Samples collected from two locations directly north of the former CSR building footprint are considered to be in the immediate site vicinity with potential for site-related contamination. The four sample locations northwest of the former CSR smelter building footprint are considered to be background sample locations. The background samples were collected upwind of the influence of site activities, based on the historical predominant wind directions.

At each sample location, soil samples were collected at depth intervals of 0–1 inch, 1–6 inches, 6–12 inches, 12–18 inches, and 18–24 inches using a decontaminated stainless-steel auger head, with the following exceptions:

- Sample location 1411-S03 met auger refusal at 22 inches; therefore, the last depth interval for location 1411-S03 is 18–22 inches. [Note: The refusal depth is not reflected in Sample Number 1411-S03-1824 indicated on the chain of custody record].
- Sample location 1411-S05 met auger refusal at 19 inches; therefore, the last depth interval for location 1411-S05 is 18–19 inches.
- Sample location 1411-S06 met auger refusal at 18 inches; therefore, the fourth and last depth interval for location 1411-S06 is 12–18 inches.
- Sample location 1411-S08 met refusal at 12 inches; therefore, the third and last depth interval for location 1411-S08 is 6–12 inches.

Each sample was homogenized in a dedicated, disposable aluminum tray with a dedicated, disposable plastic scoop prior to insertion into the sample container. All remaining soil not used for laboratory analysis was discarded at the sampling location.

All soil samples were submitted for analysis of TAL Inorganics (plus Sn), excluding mercury and cyanide. Soil samples collected from the 0–1 inch interval were designated for sieving by EPA DESA with a 250-micron, stainless-steel sieve and pan. Five soil samples were designated as matrix spike/matrix spike duplicate (MS/MSD) for quality assurance/quality control (QA/QC) purposes. One rinsate blank was collected to demonstrate adequate decontamination of non-dedicated sampling equipment (i.e., hand auger).

WESTON logged sample locations electronically using GPS equipment and performed post-processing differential correction of the GPS data in accordance with EPA Region 2 GPS Standard Operating Procedures. The processed GPS data for all samples have been transferred to the Sample Location Map (Figure 3) using a Geographic Information System.

All samples were collected from locations associated with the former Columbia Smelting & Refining Works site under the Region 1 Superfund Technical Assessment and Response Team III (START III) contract. All samples were hand-delivered to the EPA DESA lab for analysis. The Chain of Custody Records are presented in Attachment 1.

8. Report Prepared by:  Date: 10/27/2014
Denise Breen


9. Report Approved by:  Date: 10/27/2014
Gerald V. Gilliland, P.G.

TABLE 1
SAMPLE DESCRIPTIONS
COLUMBIA SMELTING & REFINING WORKS
BROOKLYN, NEW YORK

Sample No.	Date	Time	Comments
1411-S01-0001 (MS/MSD)	10/15/2014	1145	Soil sample from the grassy area within the New York City Housing Authority (NYCHA) property, northeast of the former Columbia facility footprint. Depth: 0–1 inch. Description: Dark brown sandy silt, trace organic matter. Matrix spike/matrix spike duplicate (MS/MSD) for quality assurance/quality control (QA/QC) purposes.
1411-S01-0106	10/15/2014	1147	Soil sample from the grassy area within the NYCHA property, northeast of the former Columbia facility footprint. Depth: 1–6 inches. Description: Dark brown sandy silt with cobbles and few pebbles.
1411-S01-0612	10/15/2014	1149	Soil sample from the grassy area within the NYCHA property, northeast of the former Columbia facility footprint. Depth: 6–12 inches. Description: Dark brown sandy silt, fill material with rocks and brick fragments.
1411-S01-1218	10/15/2014	1151	Soil sample from the grassy area within the NYCHA property, northeast of the former Columbia facility footprint. Depth: 12–18 inches. Description: Dark brown sandy silt, fill material with rocks, brick fragments, and twisted metal.
1411-S01-1824	10/15/2014	1153	Soil sample from the grassy area within the NYCHA property, northeast of the former Columbia facility footprint. Depth: 18–24 inches. Description: Dark brown sandy silt, fill material with rocks, brick fragments, and twisted metal.
1411-S02-0001	10/15/2014	1123	Soil sample from the grassy area within the NYCHA property, northeast of the former Columbia facility footprint. Depth: 0–1 inch. Description: Medium brown silt and sand, and organic matter; dry.
1411-S02-0106	10/15/2014	1125	Soil sample from the grassy area within the NYCHA property, northeast of the former Columbia facility footprint. Depth: 1–6 inches. Description: Medium brown silt and sand, and organic matter with pebbles; dry.
1411-S02-0612	10/15/2014	1127	Soil sample from the grassy area within the NYCHA property, northeast of the former Columbia facility footprint. Depth: 6–12 inches. Description: Medium-light brown silt and sand, and fill (glass, cobbles and gravel).
1411-S02-1218	10/15/2014	1129	Soil sample from the grassy area within the NYCHA property, northeast of the former Columbia facility footprint. Depth: 12–18 inches. Description: Light brown and tan fill (glass, cobbles and gravel).
1411-S02-1824	10/15/2014	1131	Soil sample from the grassy area within the NYCHA property, northeast of the former Columbia facility footprint. Depth: 18–24 inches. Description: Light brown and gray fill.

TABLE 1 (continued)
SAMPLE DESCRIPTIONS
COLUMBIA SMELTING & REFINING WORKS
BROOKLYN, NEW YORK

Sample No.	Date	Time	Comments
1411-S03-0001	10/15/2014	1340	Soil sample from the grassy area within the NYCHA property, northwest of the former Columbia facility footprint. Depth: 0–1 inch. Description: Medium brown silty sand with fill (glass and pebbles).
1411-S03-0106	10/15/2014	1342	Soil sample from the grassy area within the NYCHA property, northwest of the former Columbia facility footprint. Depth: 1–6 inches. Description: Light brown to medium brown silty sand with cobbles.
1411-S03-0612	10/15/2014	1346	Soil sample from the grassy area within the NYCHA property, northwest of the former Columbia facility footprint. Depth: 6–12 inches. Description: Medium brown sandy-silt, with cobbles and rocks.
1411-S03-1218	10/15/2014	1348	Soil sample from the grassy area within the NYCHA property, northwest of the former Columbia facility footprint. Depth: 12–18 inches. Description: Medium brown sandy-silt, with cobbles and rocks.
1411-S03-1824	10/15/2014	1350	Soil sample from the grassy area within the NYCHA property, northwest of the former Columbia facility footprint. Depth: 18–22 inches [Note discrepancy with sample number]. Description: Medium brown sandy-silt, with pebbles.
1411-S04-0001	10/15/2014	1340	Soil sample from the right-of-way (ROW) street tree opening area located on Lorraine Street, northwest of the former Columbia facility footprint. Depth: 0–1 inch. Description: Medium brown silty sand and fill (gravel and brick fragments).
1411-S04-0106	10/15/2014	1342	Soil sample from the ROW street tree opening area located on Lorraine Street, northwest of the former Columbia facility footprint. Depth: 1–6 inches. Description: Medium brown silty sand and fill (gravel and brick fragments).
1411-S04-0612	10/15/2014	1344	Soil sample from the ROW street tree opening area located on Lorraine Street, northwest of the former Columbia facility footprint. Depth: 6–12 inches. Description: Medium brown silty sand and fill (gravel and brick fragments).
1411-S04-1218	10/15/2014	1346	Soil sample from the ROW street tree opening area located on Lorraine Street, northwest of the former Columbia facility footprint. Depth: 12–18 inches. Description: Medium brown silty sand and fill (gravel and brick fragments).

TABLE 1 (continued)
SAMPLE DESCRIPTIONS
COLUMBIA SMELTING & REFINING WORKS
BROOKLYN, NEW YORK

Sample No.	Date	Time	Comments
1411-S04-1824	10/15/2014	1348	Soil sample from the ROW street tree opening area located on Lorraine Street, northwest of the former Columbia facility footprint. Depth: 18–24 inches. Description: Medium brown sand and fill (gravel, glass, and brick fragments), cobbles.
1411-S05-0001	10/16/2014	1706	Soil sample from the grassy area located within Red Hook Park on the former Columbia facility footprint. Depth: 0–1 inch. Description: Medium to dark brown sandy-silt with organic matter; moist.
1411-S05-0106 (MS/MSD)	10/16/2014	1708	Soil sample from the grassy area located within Red Hook Park on the former Columbia facility footprint. Depth: 1–6 inches. Description: Medium brown silty sand with cobbles, rocks, and small pebbles. MS/MSD sample for QA/QC purposes.
1411-S05-0612	10/16/2014	1710	Soil sample from the grassy area located within Red Hook Park on the former Columbia facility footprint. Depth: 6–12 inches. Description: Medium to dark brown silty sand with some fill and cobbles.
1411-S05-1218	10/16/2014	1712	Soil sample from the grassy area located within Red Hook Park on the former Columbia facility footprint. Depth: 12–18 inches. Description: Dark brown silty sand with fill (brick), some rocks.
1411-S05-1819	10/16/2014	1716	Soil sample from the grassy area located within Red Hook Park on the former Columbia facility footprint. Depth: 18–19 inches. Description: Dark brown silty sand with fill (pottery, bricks, and glass fragments).
1411-S06-0001	10/16/2014	1624	Soil sample from the grassy area located within Red Hook Park southeast of and adjacent to the former Columbia facility footprint. Depth: 0–1 inch. Description: Dark brown silty sand.
1411-S06-0106	10/16/2014	1626	Soil sample from the grassy area located within Red Hook Park southeast of and adjacent to the former Columbia facility footprint. Depth: 1–6 inches. Description: Dark brown silty sand, some cobbles.
1411-S06-0612	10/16/2014	1628	Soil sample from the grassy area located within Red Hook Park southeast of and adjacent to the former Columbia facility footprint. Depth: 6–12 inches. Description: Dark brown silty sand, some pebbles.
1411-S06-1218	10/16/2014	1630	Soil sample from the grassy area located within Red Hook Park southeast of and adjacent to the former Columbia facility footprint. Depth: 12–18 inches. Description: Dark brown silty sand and fill, some rocks.
1411-S07-0001	10/16/2014	1516	Soil sample from the grassy area located within Red Hook Park southwest of and adjacent to the former Columbia facility footprint. Depth: 0–1 inch. Description: Dark brown silt and sand, trace organic matter.

TABLE 1 (continued)
SAMPLE DESCRIPTIONS
COLUMBIA SMELTING & REFINING WORKS
BROOKLYN, NEW YORK

Sample No.	Date	Time	Comments
1411-S07-0106	10/16/2014	1518	Soil sample from the grassy area located within Red Hook Park southwest of and adjacent to the former Columbia facility footprint. Depth: 1–6 inches. Description: Medium brown silty sand, some organic matter.
1411-S07-0612	10/16/2014	1520	Soil sample from the grassy area located within Red Hook Park southwest of and adjacent to the former Columbia facility footprint. Depth: 6–12 inches. Description: Dark brown silty sand, some fill (brick fragments).
1411-S07-1218	10/16/2014	1522	Soil sample from the grassy area located within Red Hook Park southwest of and adjacent to the former Columbia facility footprint. Depth: 12–18 inches. Description: Medium brown with grey sandy silt and fill.
1411-S07-1824	10/16/2014	1524	Soil sample from the grassy area located within Red Hook Park southwest of and adjacent to the former Columbia facility footprint. Depth: 18–24 inches. Description: Gray sand and fill, with brick, cement, and glass fragments.
1411-S08-0001	10/16/2014	1550	Soil sample from the grassy area located within Red Hook Park south of and adjacent to the former Columbia facility footprint. Depth: 0–1 inch. Description: Dark brown silty sand with organic matter.
1411-S08-0106	10/16/2014	1552	Soil sample from the grassy area located within Red Hook Park south of and adjacent to the former Columbia facility footprint. Depth: 1–6 inches. Description: Dark brown silty sand with rocks.
1411-S08-0612	10/16/2014	1554	Soil sample from the grassy area located within Red Hook Park south of and adjacent to the former Columbia facility footprint. Depth: 6–12 inches. Description: Dark brown silty sand and fill (metal, brick, and glass fragments).
1411-S09-0001	10/16/2014	1216	Soil sample from the grassy area located within Red Hook Park southeast of the former Columbia facility footprint. Depth: 0–1 inch. Description: Dark brown silty sand with organic matter.
1411-S09-0106	10/16/2014	1218	Soil sample from the grassy area located within Red Hook Park southeast of the former Columbia facility footprint. Depth: 1–6 inches. Description: Dark brown silty sand with trace organic matter.
1411-S09-0612 (MS/MSD)	10/16/2014	1220	Soil sample from the grassy area located within Red Hook Park southeast of the former Columbia facility footprint. Depth: 6–12 inches. Description: Dark brown silty sand, fill (glass and rock fragments). MS/MSD sample for QA/QC purposes.

TABLE 1 (continued)
SAMPLE DESCRIPTIONS
COLUMBIA SMELTING & REFINING WORKS
BROOKLYN, NEW YORK

Sample No.	Date	Time	Comments
1411-S09-1218	10/16/2014	1222	Soil sample from the grassy area located within Red Hook Park southeast of the former Columbia facility footprint. Depth: 12–18 inches. Description: Light brown sand and fill (ash, glass, wood fragments); dry.
1411-S09-1824	10/16/2014	1224	Soil sample from the grassy area located within Red Hook Park southeast of the former Columbia facility footprint. Depth: 18–24 inches. Description: Light grey and brown sand and fill (ash, glass, wood fragments); dry.
1411-S10-0001	10/16/2014	1230	Soil sample from the grassy area located within Red Hook Park southeast of the former Columbia facility footprint. Depth: 0–1 inch. Description: Dark brown silty sand with roots.
1411-S10-0106	10/16/2014	1232	Soil sample from the grassy area located within Red Hook Park southeast of the former Columbia facility footprint. Depth: 1–6 inches. Description: Dark brown silty sand with roots and rocks.
1411-S10-0612	10/16/2014	1234	Soil sample from the grassy area located within Red Hook Park southeast of the former Columbia facility footprint. Depth: 6–12 inches. Description: Dark brown silty sand with roots and rocks.
1411-S10-1218	10/16/2014	1238	Soil sample from the grassy area located within Red Hook Park southeast of the former Columbia facility footprint. Depth: 12–18 inches. Description: Medium brown silty sand with rocks and pebbles.
1411-S10-1824	10/16/2014	1240	Soil sample from the grassy area located within Red Hook Park southeast of the former Columbia facility footprint. Depth: 18–24 inches. Description: Medium brown silty sand and fill (rock and brick fragments).
1411-S11-0001	10/15/2014	1505	Soil sample from the grassy area located within the ROW along the east side of Henry Street, southeast of the former Columbia facility footprint. Depth: 0–1 inch. Description: Medium brown silty sand with little pebbles; dry.
1411-S11-0106	10/15/2014	1507	Soil sample from the grassy area located within the ROW along the east side of Henry Street, southeast of the former Columbia facility footprint. Depth: 1–6 inches. Description: Medium brown silty sand, with roots and little pebbles; dry.
1411-S11-0612	10/15/2014	1509	Soil sample from the grassy area located within the ROW along the east side of Henry Street, southeast of the former Columbia facility footprint. Depth: 6–12 inches. Description: Medium brown silty sand, with roots and brick fragments; dry.

TABLE 1 (continued)
SAMPLE DESCRIPTIONS
COLUMBIA SMELTING & REFINING WORKS
BROOKLYN, NEW YORK

Sample No.	Date	Time	Comments
1411-S11-1218	10/15/2014	1511	Soil sample from the grassy area located within the ROW along the east side of Henry Street, southeast of the former Columbia facility footprint. Depth: 12–18 inches. Description: Medium brown silty sand with organic matter (loam).
1411-S11-1824	10/15/2014	1513	Soil sample from the grassy area located within the ROW along the east side of Henry Street, southeast of the former Columbia facility footprint. Depth: 18–24 inches. Description: Medium brown silty sand with organic matter (loam).
1411-S12-0001	10/15/2014	1502	Soil sample from the grassy area located within the ROW along the east side of Henry Street, southeast of the former Columbia facility footprint. Depth: 0–1 inch. Description: Dark brown silty sand and organic material.
1411-S12-0106	10/15/2014	1504	Soil sample from the grassy area located within the ROW along the east side of Henry Street, southeast of the former Columbia facility footprint. Depth: 1–6 inches. Description: Medium brown silty sand with pebbles.
1411-S12-0612	10/15/2014	1506	Soil sample from the grassy area located within the ROW along the east side of Henry Street, southeast of the former Columbia facility footprint. Depth: 6–12 inches. Description: Light brown silty sand with rocks.
1411-S12-1218	10/15/2014	1508	Soil sample from the grassy area located within the ROW along the east side of Henry Street, southeast of the former Columbia facility footprint. Depth: 12–18 inches. Description: Light brown silty sand with fill (rocks and glass fragments).
1411-S12-1824	10/15/2014	1510	Soil sample from the grassy area located within the ROW along the east side of Henry Street, southeast of the former Columbia facility footprint. Depth: 18–24 inches. Description: Light brown silty sand with cobbles and pebbles; moist.
1411-S13-0001	10/16/2014	1322	Soil sample from the grassy area located within Red Hook Park southwest of the former Columbia facility footprint. Depth: 0–1 inch. Description: Medium to dark brown sandy-silt with organic matter and pebbles.
1411-S13-0106	10/16/2014	1324	Soil sample from the grassy area located within Red Hook Park southwest of the former Columbia facility footprint. Depth: 1–6 inches. Description: Medium brown sandy-silt with some organic matter and pebbles.

TABLE 1 (continued)
SAMPLE DESCRIPTIONS
COLUMBIA SMELTING & REFINING WORKS
BROOKLYN, NEW YORK

Sample No.	Date	Time	Comments
1411-S13-0612	10/16/2014	1326	Soil sample from the grassy area located within Red Hook Park southwest of the former Columbia facility footprint. Depth: 6–12 inches. Description: Medium brown sandy-silt some organic matter and pebbles and larger rocks.
1411-S13-1218	10/16/2014	1330	Soil sample from the grassy area located within Red Hook Park southwest of the former Columbia facility footprint. Depth: 12–18 inches. Description: Medium brown and light grey sandy-silt with large rocks; dry.
1411-S13-1824	10/16/2014	1332	Soil sample from the grassy area located within Red Hook Park southwest of the former Columbia facility footprint. Depth: 18–24 inches. Description: Light brown and grey sandy-silt and fill (rock fragments and ash).
1411-S14-0001	10/16/2014	1344	Soil sample from the grassy area located within Red Hook Park southwest of the former Columbia facility footprint. Depth: 0–1 inch. Description: Dark brown sandy-silt with cobbles; moist.
1411-S14-0106	10/16/2014	1346	Soil sample from the grassy area located within Red Hook Park southwest of the former Columbia facility footprint. Depth: 1–6 inches. Description: Medium brown sandy-silt with rocks and cobbles.
1411-S14-0612	10/16/2014	1348	Soil sample from the grassy area located within Red Hook Park southwest of the former Columbia facility footprint. Depth: 6–12 inches. Description: Medium brown sandy-silt and fill (glass fragments); dry.
1411-S14-1218	10/16/2014	1350	Soil sample from the grassy area located within Red Hook Park southwest of the former Columbia facility footprint. Depth: 12–18 inches. Description: Medium brown sandy-silt with fill (glass fragments); dry.
1411-S14-1824 (MS/MSD)	10/16/2014	1352	Soil sample from the grassy area located within Red Hook Park southwest of the former Columbia facility footprint. Depth: 18–24 inches. Description: Medium to dark brown sandy-silt with fill material (glass fragments and ash). MS/MSD sample for QA/QC purposes.
1411-S15-0001	10/15/2014	1012	Immediate site vicinity soil sample from the grassy area within the NYCHA property north of the former Columbia facility footprint. Depth: 0–1 inch. Description: Dark brown silty sand with trace organic matter.
1411-S15-0106	10/15/2014	1014	Immediate site vicinity soil sample from the grassy area within the NYCHA property north of the former Columbia facility footprint. Depth: 1–6 inches. Description: Light brown silty sand with some rocks; dry.

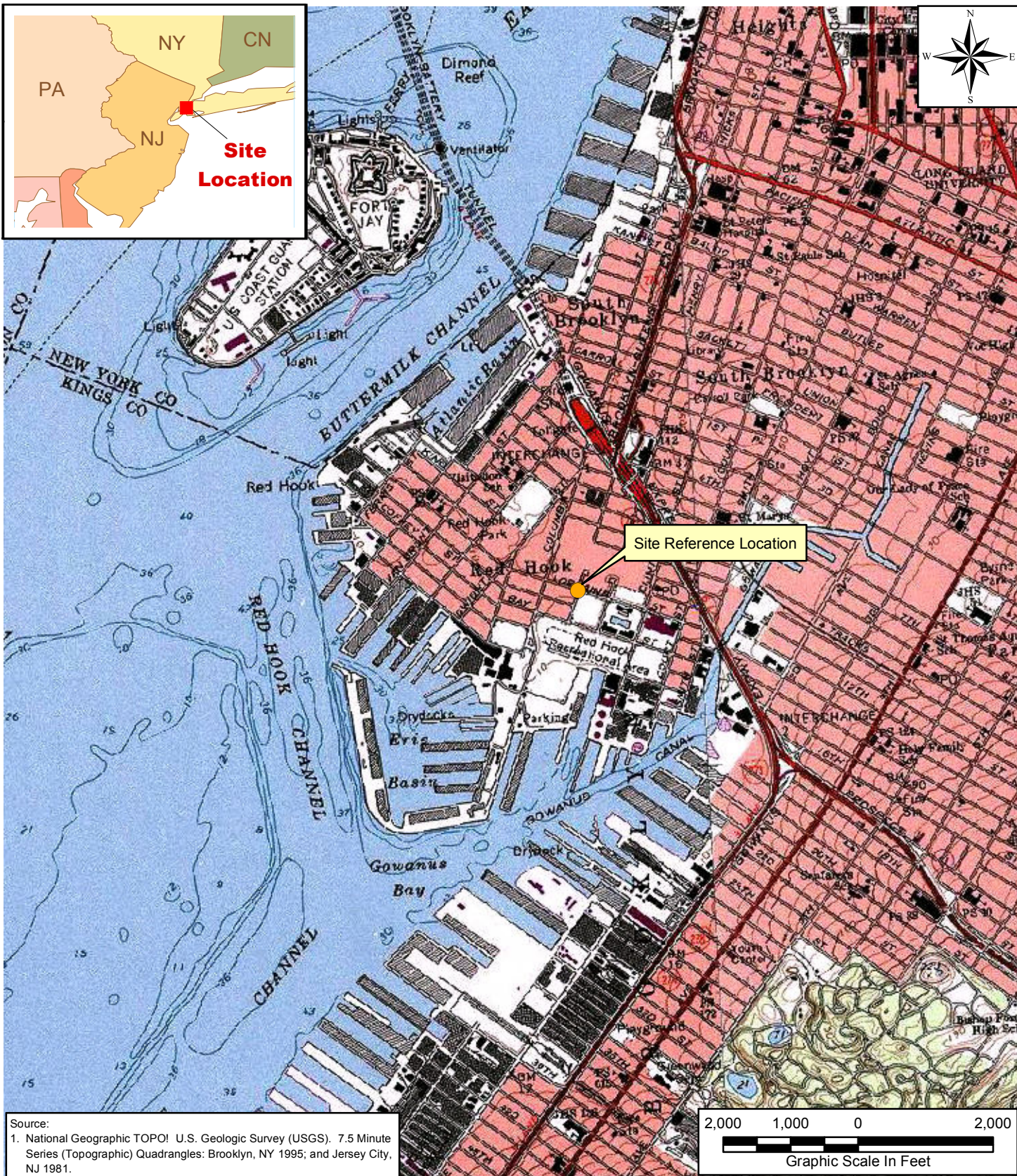
TABLE 1 (continued)
SAMPLE DESCRIPTIONS
COLUMBIA SMELTING & REFINING WORKS
BROOKLYN, NEW YORK

Sample No.	Date	Time	Comments
1411-S15-0612	10/15/2014	1016	Immediate site vicinity soil sample from the grassy area within the NYCHA property north of the former Columbia facility footprint. Depth: 6–12 inches. Description: Light brown sandy-silt with cobbles and rocks; dry.
1411-S15-1218	10/15/2014	1018	Immediate site vicinity soil sample from the grassy area within the NYCHA property north of the former Columbia facility footprint. Depth: 12–18 inches. Description: Light brown sandy-silt with cobbles and rocks; dry.
1411-S15-1824	10/15/2014	1020	Immediate site vicinity soil sample from the grassy area within the NYCHA property north of the former Columbia facility footprint. Depth: 18–24 inches. Description: Light brown sandy-silt with rocks; dry.
1411-S16-0001	10/15/2014	1007	Immediate site vicinity soil sample from the grassy area within the NYCHA property north of the former Columbia facility footprint. Depth: 0–1 inch. Description: Medium brown silty sand and organic matter (loam).
1411-S16-0106	10/15/2014	1009	Immediate site vicinity soil sample from the grassy area within the NYCHA property north of the former Columbia facility footprint. Depth: 1–6 inches. Description: Medium brown silty sand with some organic matter.
1411-S16-0612	10/15/2014	1011	Immediate site vicinity soil sample from the grassy area within the NYCHA property north of the former Columbia facility footprint. Depth: 6–12 inches. Description: Medium brown silty sand.
1411-S16-1218 (MS/MSD)	10/15/2014	1013	Immediate site vicinity soil sample from the grassy area within the NYCHA property north of the former Columbia facility footprint. Depth: 12–18 inches. Description: Medium brown silty sand, some small pebbles. MS/MSD sample for QA/QC purposes.
1411-S16-1824	10/15/2014	1015	Immediate site vicinity soil sample from the grassy area within the NYCHA property north of the former Columbia facility footprint. Depth: 18–24 inches. Description: Medium brown silty sand, some small pebbles and glass.
1411-S17-0001	10/15/2014	1022	Duplicate of 1411-S15-0001.
1411-S17-0106	10/15/2014	1344	Duplicate of 1411-S03-0106.
1411-S17-0612	10/16/2014	1236	Duplicate of 1411-S10-0612.
1411-S17-1218	10/16/2014	1714	Duplicate of 1411-S05-1218.
1411-S17A-1218	10/16/2014	1328	Duplicate of 1411-S13-1218.
1411-RIN01	10/15/2014	1030	Rinsate blank sample collected from the decontaminated auger head.

FIGURE 1 – SITE LOCATION MAP

FIGURE 2 – SITE MAP

FIGURE 3 – SAMPLE LOCATION MAP



Source:
1. National Geographic TOPO! U.S. Geologic Survey (USGS). 7.5 Minute Series (Topographic) Quadrangles: Brooklyn, NY 1995; and Jersey City, NJ 1981.

LEGEND:

● Site Reference Location

PROJECT:

Columbia Smelting & Refining Works

CLIENT NAME:

EPA

TITLE:

Site Location Map
Columbia Smelting & Refining Works
98 Lorraine Street, Brooklyn, NY

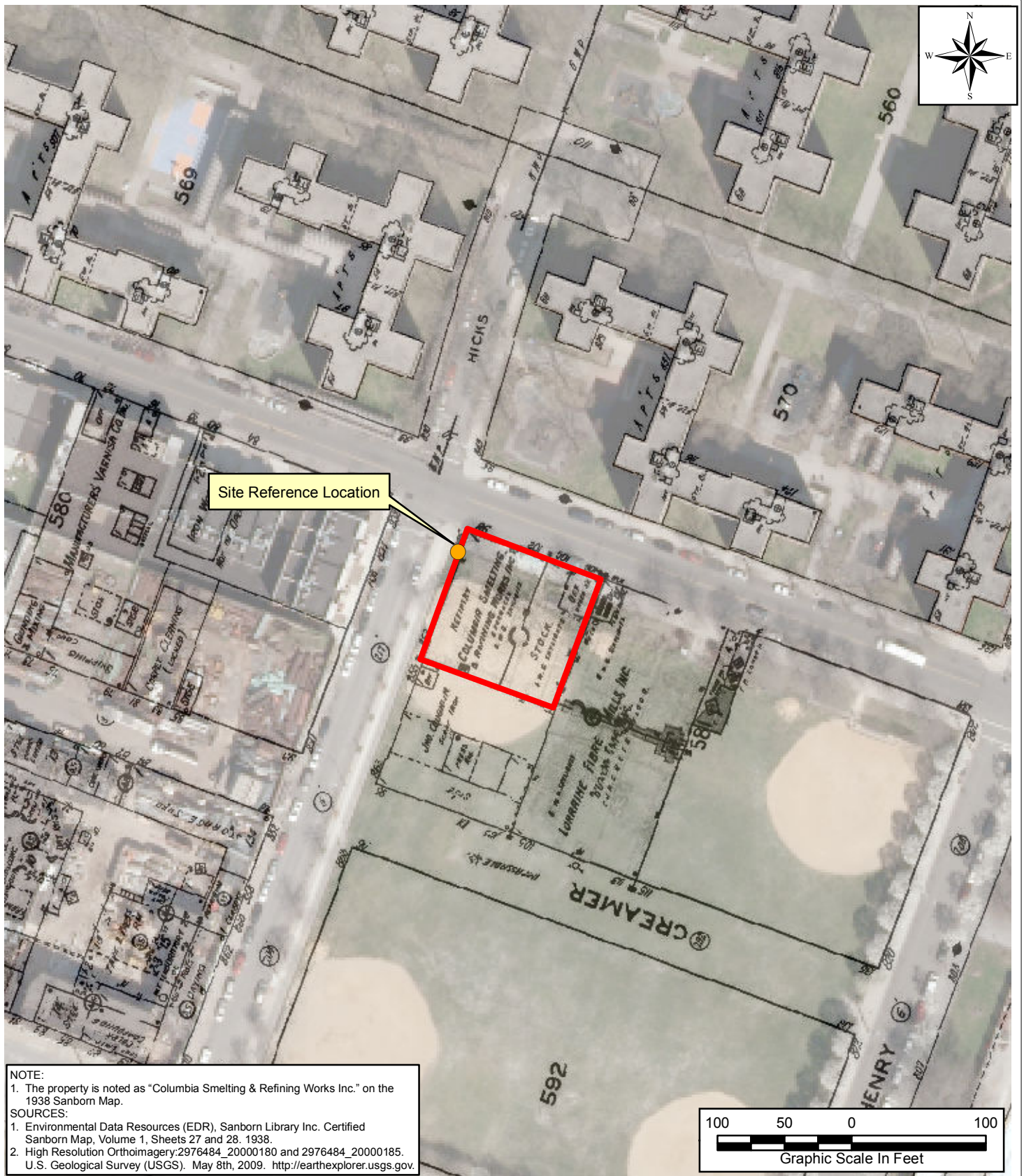
WESTON
SOLUTIONS

DATE:

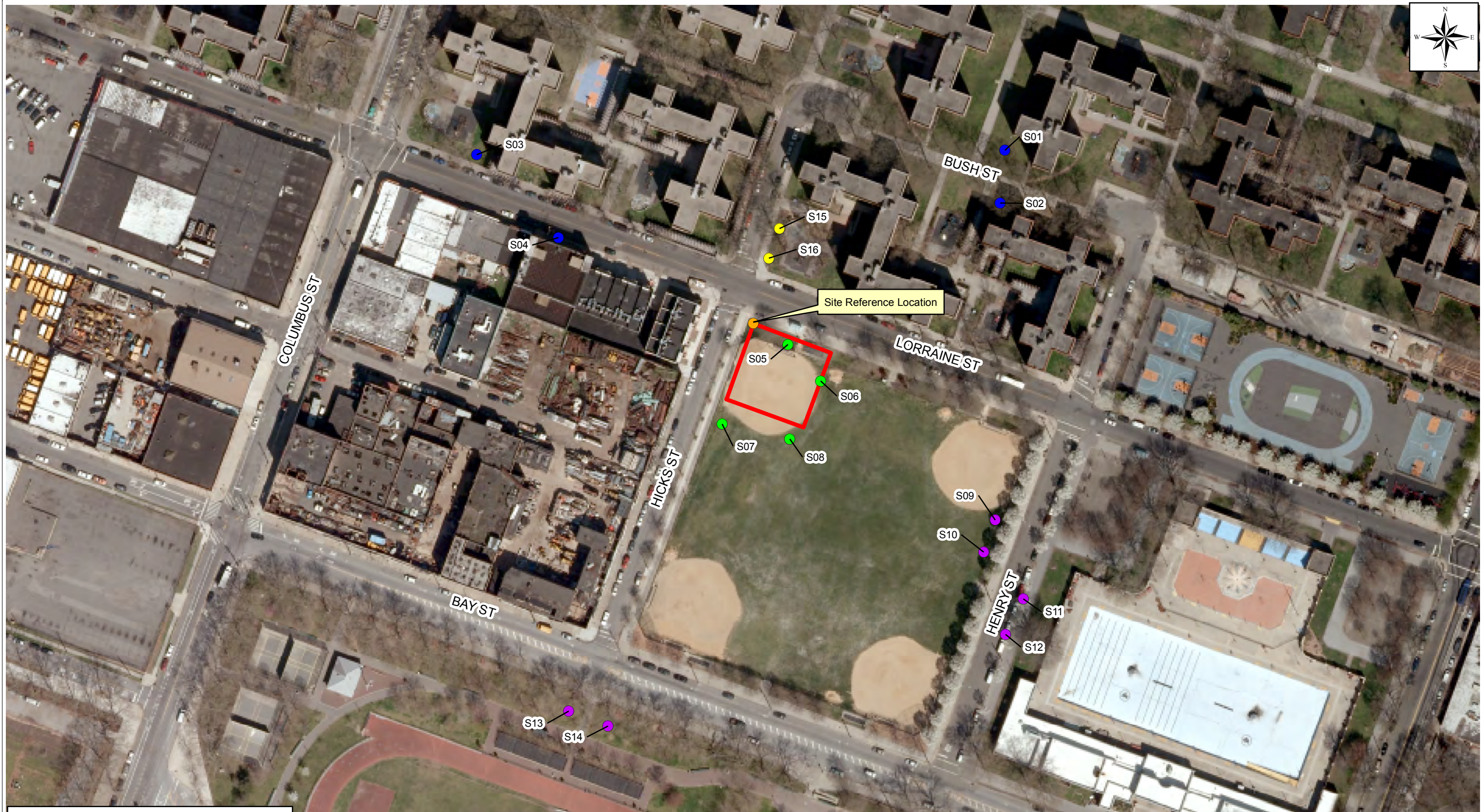
October 2014

FIGURE #:

1



P:\SAT2014_Smelters_Sites\Columbia Smelting\MXD\15582_CSRW_Prop_Loc.mxd



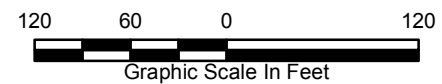
Legend

- Background Sample Location
- Release Sample Location
- Site Sample Location
- Immediate Site Vicinity Sample Location
- Site Reference Location
- Approximate Footprint of the Former Smelter Facility

NOTE:

- The property is noted as "Columbia Smelting & Refining Works Inc." on the 1938 Sanborn Map.
 - All location IDs preceded by "1411-".
- SOURCES:
- Environmental Data Resources (EDR), Sanborn Library Inc. Certified Sanborn Map, Volume 1, Sheets 27 and 28, 1938.
 - High Resolution Orthoimagery: 2976484_20000180 and 2976484_20000185. U.S. Geological Survey (USGS). May 8th, 2009. <http://earthexplorer.usgs.gov>.

SCALE:



PROJECT:

Columbia Smelting & Refining Works

CLIENT NAME:

EPA

TITLE:

Sample Location Map
Columbia Smelting & Refining Works
98 Lorraine Street, Brooklyn, NY



DATE:

October 2014

FIGURE #:

3

ATTACHMENT 1

CHAIN OF CUSTODY RECORDS

USEPA

DateShipped: 10/17/2014

CarrierName:

AirbillNo:

CHAIN OF CUSTODY RECORD

R02_Columbia Smelting

Contact Name: Denise Breen

Contact Phone: 732-417-5814

No: 2-101714-104142-0001

Cooler #: 1

Lab: US EPA Region 2

Lab Phone: 732032106707

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	1411-S01-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	11:45	1	4-oz. glass jar	4 C	Y
	1411-S01-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	11:47	1	4-oz. glass jar	4 C	N
	1411-S01-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	11:49	1	4-oz. glass jar	4 C	N
	1411-S01-1218	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	11:51	1	4-oz. glass jar	4 C	N
	1411-S01-1824	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	11:53	1	4-oz. glass jar	4 C	N
	1411-S02-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	11:23	1	4-oz. glass jar	4 C	N
	1411-S02-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	11:25	1	4-oz. glass jar	4 C	N
	1411-S02-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	11:27	1	4-oz. glass jar	4 C	N
	1411-S02-1218	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	11:29	1	4-oz. glass jar	4 C	N
	1411-S02-1824	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	11:31	1	4-oz. glass jar	4 C	N
	1411-S03-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	13:40	1	4-oz. glass jar	4 C	N
	1411-S03-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	13:42	1	4-oz. glass jar	4 C	N
	1411-S03-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	13:46	1	4-oz. glass jar	4 C	N
	1411-S03-1218	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	13:48	1	4-oz. glass jar	4 C	N
	1411-S03-1824	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	13:50	1	4-oz. glass jar	4 C	N
	1411-S04-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	13:40	1	4-oz. glass jar	4 C	N
	1411-S04-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	13:42	1	4-oz. glass jar	4 C	N
	1411-S04-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	13:44	1	4-oz. glass jar	4 C	N
	1411-S04-1218	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	13:46	1	4-oz. glass jar	4 C	N

3178
Special Instructions: Soil samples designated as 1411-S01-0-1 through 1411-S05-0-1 require sieving through a 250-micron (um) stainless-steel sieve and pan. Results to be made available on HWSS Quicr website/ MS/MSD: 1411-S01-0001 and 1411-S05-0106.

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Sampling	Denise Breen / Weston	10/17/14 1330	J R Breen	10-17-14 1:50p.	

USEPA

DateShipped: 10/17/2014

CarrierName:

AirbillNo:

CHAIN OF CUSTODY RECORD

R02_Columbia Smelting

Contact Name: Denise Breen

Contact Phone: 732-417-5814

No: 2-101714-104142-0001

Cooler #: 1

Lab: US EPA Region 2

Lab Phone: 732032106707

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	1411-S04-1824	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	13:48	1	4-oz. glass jar	4 C	N
	1411-S05-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	17:06	1	4-oz. glass jar	4 C	N
	1411-S05-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	17:08	1	4-oz. glass jar	4 C	Y
	1411-S05-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	17:10	1	4-oz. glass jar	4 C	N
	1411-S05-1218	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	17:12	1	4-oz. glass jar	4 C	N
	1411-S05-1819	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	17:16	1	4-oz. glass jar	4 C	N
	1411-S06-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	16:24	1	4-oz. glass jar	4 C	N
	1411-S06-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	16:26	1	4-oz. glass jar	4 C	N
	1411-S06-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	16:28	1	4-oz. glass jar	4 C	N
	1411-S06-1218	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	16:30	1	4-oz. glass jar	4 C	N
	1411-S07-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	15:16	1	4-oz. glass jar	4 C	N
	1411-S07-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	15:18	1	4-oz. glass jar	4 C	N
	1411-S07-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	15:20	1	4-oz. glass jar	4 C	N
	1411-S07-1218	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	15:22	1	4-oz. glass jar	4 C	N
	1411-S07-1824	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	15:24	1	4-oz. glass jar	4 C	N
	1411-S08-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	15:50	1	4-oz. glass jar	4 C	N
	1411-S08-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	15:52	1	4-oz. glass jar	4 C	N
	1411-S08-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	15:54	1	4-oz. glass jar	4 C	N

Special Instructions: Soil samples designated as 1411-S01-0-1 through 1411-S45-0-1 require sieving through a 250-micron (um) stainless-steel sieve and pan. Results to be made available on HWSS Quickr website/ MS/MSD: 1411-S01-0001 and 1411-S05-0106.

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Sampling	Denise Breen/Watson	10/17/14 1:30	JR. Breen	10-17-14 1:50 p.m.	

USEPA

DateShipped:

CarrierName:

AirbillNo:

CHAIN OF CUSTODY RECORD

R02_Columbia Smelting

Contact Name: Denise Breen

Contact Phone: 732-417-5814

No: 2-101714-105948-0002

Cooler #: 2

Lab: US EPA Region 2

Lab Phone: 732032106707

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	1411-S09-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	12:16	1	4-oz. glass jar	4 C	N
	1411-S09-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	12:18	1	4-oz. glass jar	4 C	N
	1411-S09-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	12:20	1	4-oz. glass jar	4 C	Y
	1411-S09-1218	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	12:22	1	4-oz. glass jar	4 C	N
	1411-S09-1824	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	12:24	1	4-oz. glass jar	4 C	N
	1411-S10-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	12:30	1	4-oz. glass jar	4 C	N
	1411-S10-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	12:32	1	4-oz. glass jar	4 C	N
	1411-S10-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	12:34	1	4-oz. glass jar	4 C	N
	1411-S10-1218	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	12:38	1	4-oz. glass jar	4 C	N
	1411-S10-1824	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	12:40	1	4-oz. glass jar	4 C	N
	1411-S11-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	15:05	1	4-oz. glass jar	4 C	N
	1411-S11-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	15:07	1	4-oz. glass jar	4 C	N
	1411-S11-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	15:09	1	4-oz. glass jar	4 C	N
	1411-S11-1218	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	15:11	1	4-oz. glass jar	4 C	N
	1411-S11-1824	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	15:13	1	4-oz. glass jar	4 C	N
	1411-S12-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	15:02	1	4-oz. glass jar	4 C	N
	1411-S12-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	15:04	1	4-oz. glass jar	4 C	N
	1411-S12-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	15:06	1	4-oz. glass jar	4 C	N
	1411-S12-1218	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	15:08	1	4-oz. glass jar	4 C	N

Special Instructions: Soil samples designated as 1411-S01-0-1 through 1411-S15-0-1 require sieving through a 250-micron (um) stainless-steel sieve and pan. Results to be made available on HWSS Quicker website/ MS/MSD: 1411-S09-0612, 1411-S14-1824, and 1411-S16-1218.

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Sampling	Denise Breen / WASTON	10/17/14 13:30	JR. Breen	10-17-14 1:50pm	

USEPA

DateShipped:

CarrierName:

AirbillNo:

CHAIN OF CUSTODY RECORD

R02_Columbia Smelting

Contact Name: Denise Breen

Contact Phone: 732-417-5814

No: 2-101714-105948-0002

Cooler #: 2

Lab: US EPA Region 2

Lab Phone: 732032106707

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	1411-S12-1824	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	15:10	1	4-oz. glass jar	4 C	N
	1411-S13-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	13:22	1	4-oz. glass jar	4 C	N
	1411-S13-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	13:24	1	4-oz. glass jar	4 C	N
	1411-S13-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	13:26	1	4-oz. glass jar	4 C	N
	1411-S13-1218	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	13:30	1	4-oz. glass jar	4 C	N
	1411-S13-1824	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	13:32	1	4-oz. glass jar	4 C	N
	1411-S14-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	13:44	1	4-oz. glass jar	4 C	N
	1411-S14-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	13:46	1	4-oz. glass jar	4 C	N
	1411-S14-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	13:48	1	4-oz. glass jar	4 C	N
	1411-S14-1218	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	13:50	1	4-oz. glass jar	4 C	N
	1411-S14-1824	TAL+Sn [excluding Hg&CN-]	Soil	10/16/2014	13:52	1	4-oz. glass jar	4 C	Y
	1411-S15-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	10:12	1	4-oz. glass jar	4 C	N
	1411-S15-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	10:14	1	4-oz. glass jar	4 C	N
	1411-S15-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	10:16	1	4-oz. glass jar	4 C	N
	1411-S15-1218	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	10:18	1	4-oz. glass jar	4 C	N
	1411-S15-1824	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	10:20	1	4-oz. glass jar	4 C	N
	1411-S16-0001	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	10:07	1	4-oz. glass jar	4 C	N
	1411-S16-0106	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	10:09	1	4-oz. glass jar	4 C	N
	1411-S16-0612	TAL+Sn [excluding Hg&CN-]	Soil	10/15/2014	10:11	1	4-oz. glass jar	4 C	N

Special Instructions: Soil samples designated as 1411-S01-0-1 through 1411-S15-0-1 require sieving through a 250-micron (um) stainless-steel sieve and pan. Results to be made available on HWSS Quicr website/ MS/MSD: 1411-S09-0612, 1411-S14-1824, and 1411-S16-1218.

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Sampling	Denise Breen / Weston	10/17/14 13:30	Heute / [Signature]	10/17/14 1:50	

Contact Phone: 732-417-5814

Lab Phone: 732032106707

Special Instructions: Soil samples designated as 1411-S01-0-1 through 1411-S16-0-1 require sieving through a 250-micron (um) stainless-steel sieve and pan. Results to be made available on HWSS Quicr website/ MS/MSD: 1411-S09-0612, 1411-S14-1824, and 1411-S16-1218.

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Sampling	Dewie Green/Western	10/17/14 13:30	<i>[Signature]</i>	10/17/14 150	

AirbillNo:

CHAIN OF CUSTODY RECORD

R02_Columbia Smelting

Contact Name: Denise Breen

Contact Phone: 732-417-5814

No: 2-101714-110235-0003

Cooler #: 2

Lab: US EPA Region 2

Lab Phone: 732032106707

[illegible]

Special Instructions: Results to be made available on HWSS Quicr website.

SAMPLES TRANSFERRED FROM	
1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34
35	36
37	38
39	40
41	42
43	44
45	46
47	48
49	50
51	52
53	54
55	56
57	58
59	60
61	62
63	64
65	66
67	68
69	70
71	72
73	74
75	76
77	78
79	80
81	82
83	84
85	86
87	88
89	90
91	92
93	94
95	96
97	98
99	100

CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Sampling	Dan Green/Weston	10/17/14 9:30	[Signature]	10/17/14 150	

ATTACHMENT 2
FIELD LOG SHEETS

Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

October 2014

Sampler Name:	Denise Breen & Scott Cassidy
Sample Date and Time:	10/15/14 11:10
Sample Location/Number:	1411-501
Location Description (i.e., N side of X St in grassy ROW)	on NYCHA property at dead end of Henry St.
Soil Description 0-1	Sandy Silt Dark brown, root matter
Soil Description 1-6	Sandy Silt Dark brown, with cobbles, few pebbles
Soil Description 6-12	Dark brown Sandy Silt w/ fill; rocks & bricks fragments
Soil Description 12-18	SAA _{mc} w/ twisted metal
Soil Description 18-24	SAA _{mc}

COLLECT A GPS POINT ✓

160 points required

Sampler Signature

Denise Breen

Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

October 2014

Sampler Name:	Michele Capriglione Jake Pellicano
Sample Date and Time:	10/15/14 1106
Sample Location/Number:	1411 - SO2 (0001, 0106, 0612, 1218, 1824)
Location Description (i.e., N side of X St in grassy ROW)	NYCHA property; along Bush St.
Soil Description 0-1	Med brown silt and sand and organics; dry.
Soil Description 1-6	" w/ pebbles.
Soil Description 6-12	Med-light brown silt and sand and fill (glass, cobbles and gravel).
Soil Description 12-18	light brown and tan fill (SAA).
Soil Description 18-24	light brown/grey fill

COLLECT A GPS POINT

160 points required

Sampler Signature



Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

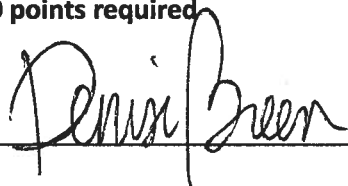
October 2014

Sampler Name:	Denise Breen & Scott Cassidy
Sample Date and Time:	1411-803- 10/15/14
Sample Location/Number:	1411-803
Location Description (i.e., N side of X St in grassy ROW)	on NYCHA property by Columbia & Corrairie St.
Soil Description 0-1	medium brown soil Silty sand, w/ fill and glass and pebbles.
Soil Description 1-6	light brown to medium brown Silty sand, cobbles.
Soil Description 6-12	medium brown Sandy silt, cobbles and rocks.
Soil Description 12-18	medium brown Sandy silt, cobbles and rocks
Soil Description 18-24 18-22	medium brown Sandy Silt, pebbles.

COLLECT A GPS POINT

160 points required

Sampler Signature



Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

October 2014

Sampler Name:	Michele Capriglione, Jake Pellicano
Sample Date and Time:	10/15/14 1326
Sample Location/Number:	## 1411-504-(0001,0106,0612,1218,1824)
Location Description (i.e., N side of X St in grassy ROW)	Street tree on S. side of Lorraine St in front of Bumble Bee daycare (#76).
Soil Description 0-1	Med brown sand ^{unc} silty sand and fill (gravel pieces, brick pieces)
Soil Description 1-6	SAA
Soil Description 6-12	SAA
Soil Description 12-18	SAA
Soil Description 18-24	Sand and <u>fill</u> (gravel + brick pieces, broken glass, cobbles)

COLLECT A GPS POINT
160 points required

Note: Saturated soil encountered
at approx 3.5' bgs; oily soil @ 3 bgs.

Sampler Signature



Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

October 2014

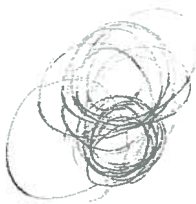
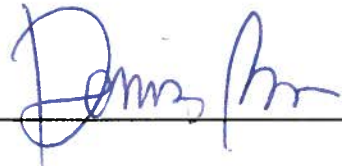
11/11/14

Sampler Name:	SC
Sample Date and Time:	10/16/14 16:50
Sample Location/Number:	S05
Location Description (i.e., N side of X St in grassy ROW)	outside fenced area.
Soil Description 0-1	Sandy silt, moist. organic matter/roots, med/dark brown.
Soil Description 1-6	Medium brown. Silty Sand. cobbles, rocks small pebbles.
Soil Description 6-12	Silty Sand. cobbles, med. brown/dark brown, some fill.
Soil Description 12-18	Silty Sand Dark Brown, fill material, brick, small rocks.
Soil Description 18-24 18-19	Silty Sand Dark brown, fill, pieces of pottery, brick, glass

COLLECT A GPS POINT

160 points required

Sampler Signature



Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

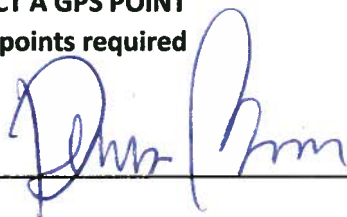
October 2014

Sampler Name:	JP
Sample Date and Time:	4:15 10/16/14
Sample Location/Number:	S06
Location Description (i.e., N side of X St in grassy ROW)	located on base ball field
Soil Description 0-1	Silty Sand & Dark Brown
Soil Description 1-6	Dark Brown Silty Sand cobbles.
Soil Description 6-12	Dark Brown Silty Sand pebbles
Soil Description 12-18	Dark Brown Silty Sand Rocks rocks, fill material.
Soil Description 18-24	<hr/> NOT collected

COLLECT A GPS POINT

160 points required

Sampler Signature



Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

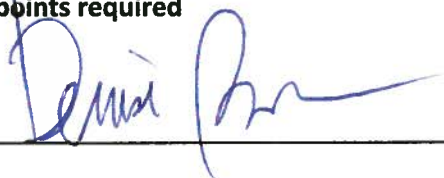
October 2014

Sampler Name:	JP
Sample Date and Time:	3:10 10/16/14
Sample Location/Number:	S07
Location Description (i.e., N side of X St in grassy ROW)	on base ball outfield
Soil Description 0-1	Silt top soil, some sand. dark brown organic matter, roots,
Soil Description 1-6	med brown some organic, silty sand
Soil Description 6-12	dark brown silty sand, pieces of brick.
Soil Description 12-18	med Brown, w/ grey fill material, sandy silt
Soil Description 18-24	grey sand fill material, rocks, cement, glass

COLLECT A GPS POINT

160 points required

Sampler Signature



Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

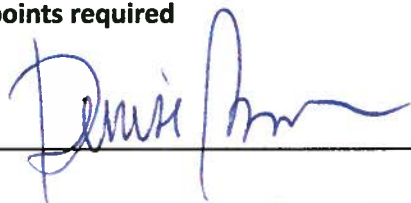
October 2014

Sampler Name:	SC
Sample Date and Time:	10/16/14 15:25
Sample Location/Number:	141-S08
Location Description (i.e., N side of X St in grassy ROW)	2nd base
Soil Description 0-1	DARK BROWN Silty Sand organic matter
Soil Description 1-6	DARK BROWN Silty Sand Rock
Soil Description 6-12	DARK BROWN Silty Sand mostly Fill : (pic) metal, brick, glass
Soil Description 12-18	_____
Soil Description 18-24	_____

COLLECT A GPS POINT

160 points required

Sampler Signature



Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

October 2014

Sampler Name:	SC
Sample Date and Time:	12:00 10/16
Sample Location/Number:	S09
Location Description (i.e., N side of X St in grassy ROW)	Closer to ball field
Soil Description 0-1	Dark silty sand. Brown. organic matter
Soil Description 1-6	Dark brown Silty sand, few organic matter roots.
Soil Description 6-12	Dark brown fill Silty sand, glass bits, rock * depth of 10-12" was layer of large rocks
Soil Description 12-18	Light brown, dry Ashy, fill rocks bricks, glass.
Soil Description 18-24	Light grey brown sand Fill; glass wood pieces, glass sand. dry

COLLECT A GPS POINT

160 points required

Sampler Signature



Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

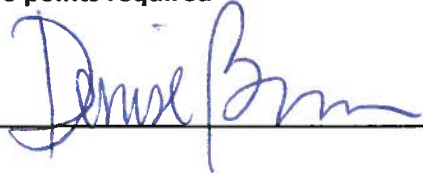
October 2014

Sampler Name:	JP
Sample Date and Time:	12:00
Sample Location/Number:	S10
Location Description (i.e., N side of X St in grassy ROW)	on baseball field SE of site
Soil Description 0-1	Dark brown Silty sand, roots
Soil Description 1-6	Dark brown Silty sand, roots & rocks.
Soil Description 6-12	SAA
Soil Description 12-18	Med Brown Silty Sand Rocks, pebbles.
Soil Description 18-24	Med Brown Silty Sand, rocks, fill, brick pieces.

COLLECT A GPS POINT

160 points required

Sampler Signature



Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

October 2014

Sampler Name:	Jake Pellicano Michele Capriglione
Sample Date and Time:	10/15/14 1453
Sample Location/Number:	1411-S11-(0001,0106,0612,1218,1824)
Location Description (i.e., N side of X St in grassy ROW)	Release location, east side of Henry St.
Soil Description 0-1	Med brown silty sand; dry; little pebbles.
Soil Description 1-6	SAA w roots.
Soil Description 6-12	SAA w roots and brick fragments.
Soil Description 12-18	Med brown silty sand w org (loam).
Soil Description 18-24	SAA

COLLECT A GPS POINT
160 points required

Sampler Signature



Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

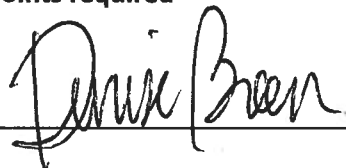
October 2014

Sampler Name:	Denise Breen & Scott Cassidy
Sample Date and Time:	2:55 - 10/15/14
Sample Location/Number:	1411-S12
Location Description (i.e., N side of X St in grassy ROW)	ROW street tree
Soil Description 0-1	Silty sand w/ dark brown organic
Soil Description 1-6	Silty dark sand Med. brown pebbles
Soil Description 6-12	Silty dark sand Light brown, Rocks
Soil Description 12-18	Silty Sand fill Light brown, broken rock, glass
Soil Description 18-24	Silty Sand light brown moist, cobbles, w/ pebbles.

COLLECT A GPS POINT

160 points required

Sampler Signature



Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

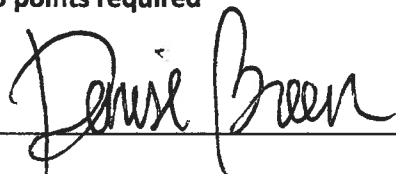
October 2014

Sampler Name:	JP
Sample Date and Time:	1320
Sample Location/Number:	S13
Location Description (i.e., N side of X St in grassy ROW)	on park dep. property W- of sidewalk
Soil Description 0-1	Sandy silt med/dark brown, organic matter, pebbles.
Soil Description 1-6	Sandy silt med brown, some organic, pebbles.
Soil Description 6-12	SFA plus larger rocks
Soil Description 12-18	Sandy silt, drier - grey tone. larger rocks, med brown
Soil Description 18-24	grey brown Fill; rocks, sandy silt.

COLLECT A GPS POINT

160 points required

Sampler Signature



Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

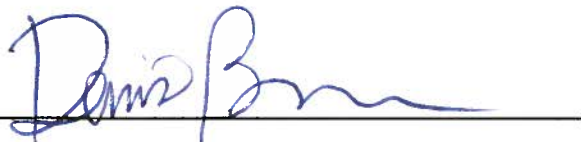
October 2014

Sampler Name:	SC
Sample Date and Time:	1340
Sample Location/Number:	S14
Location Description (i.e., N side of X St in grassy ROW)	on parks dep - E of sidewalk
Soil Description 0-1	moist, dark brown cobbles, sandy silt.
Soil Description 1-6	med brown rocks, sandy silt, on cobbles.
Soil Description 6-12	med brown, dry fill material glass, sandy silt
Soil Description 12-18	med brown, dry sandy silt. glass, fill material, sandy silt.
Soil Description 18-24	med/dark brown sandy silt, fill material glass, fill ash.

COLLECT A GPS POINT

160 points required

Sampler Signature



Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

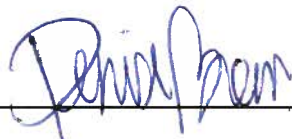
October 2014

Sampler Name:	Denise Breen
Sample Date and Time:	10:05 10/15/14
Sample Location/Number:	S15 - (North of S16 approx. 20 ft away) 1411-S15
Location Description (i.e., N side of X St in grassy ROW)	NYCHA property ↙
Soil Description 0-1	Dark brown Silty sandy soil; little organic matter
Soil Description 1-6	light brown, dry Silty sand, some rocks.
Soil Description 6-12	light brown, dry Sandy silt, cobbles and rocks.
Soil Description 12-18	light brown, dry Sandy silt w/ cobbles Rocks
Soil Description 18-24	light brown, dry Sandy silt, w/ rocks.

COLLECT A GPS POINT

160 points required

Sampler Signature



Columbia Smelting Refining - Task 1411

Sample Collection Data Sheet

Weston Solutions, Inc.

October 2014

Sampler Name:	Michele Capriglione Jake Pellicano
Sample Date and Time:	10/15/14 1003
Sample Location/Number:	1411-S16-(0001,0104,0612,1218,1824)
Location Description (i.e., N side of X St in grassy ROW)	NYCHA property, grassy area at corner of Corraire + Hicks
Soil Description 0-1	Med brown silty sand and organics (loam).
Soil Description 1-6	Med brown silty sand some some organics.
Soil Description 6-12	Med brown silty sand
Soil Description 12-18	// some little small pebbles.
Soil Description 18-24	// some small pebbles and glass.

COLLECT A GPS POINT

160 points required

Sampler Signature

